Adventures in Creative Computing

Professor Andrew Hugill
Bath Spa University
October 2016

Professorial Lectures



Themes

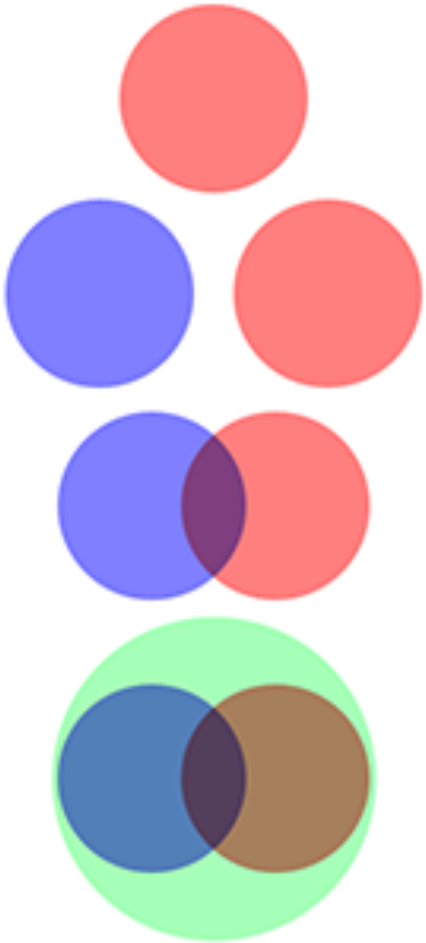
- Transdisciplinarity
- Emergence
- Logic (illogic)
- Creativity

Discipline

Multidisciplinary

Interdisciplinary

Transdisciplinary



Practice as Research

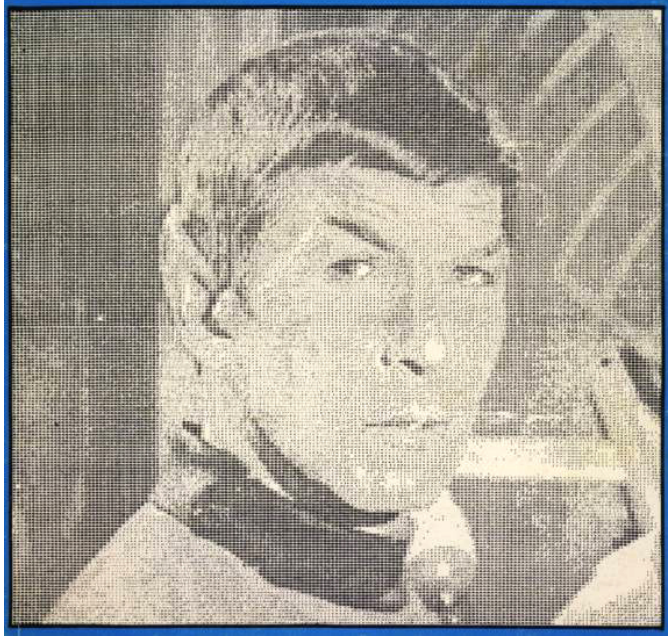


The Best of

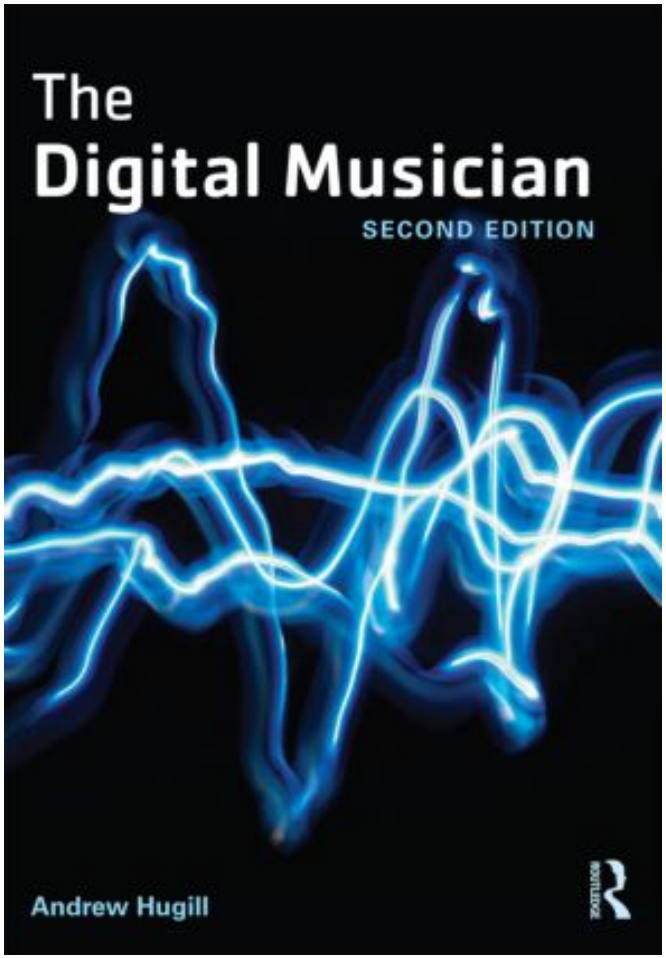
creative computing

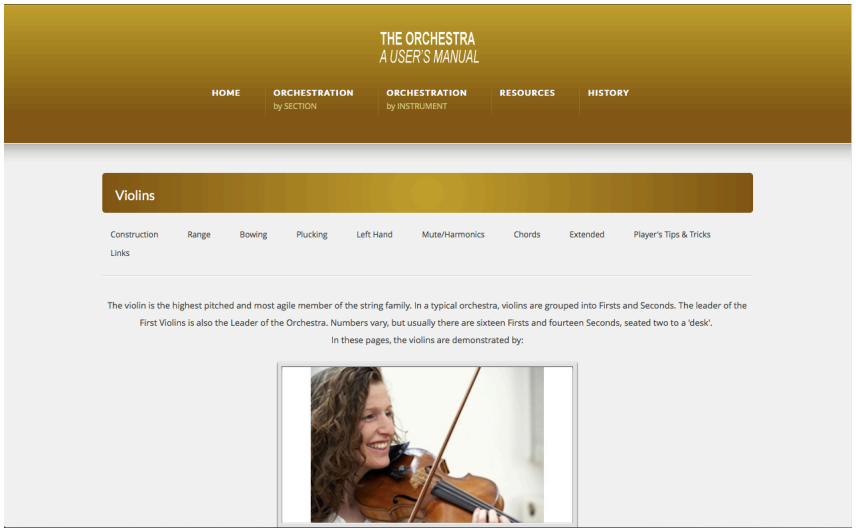
ISBN 0-916688-01-1
$8.95

Volume 1 Edited by David H. Ahl



Humans and Technology

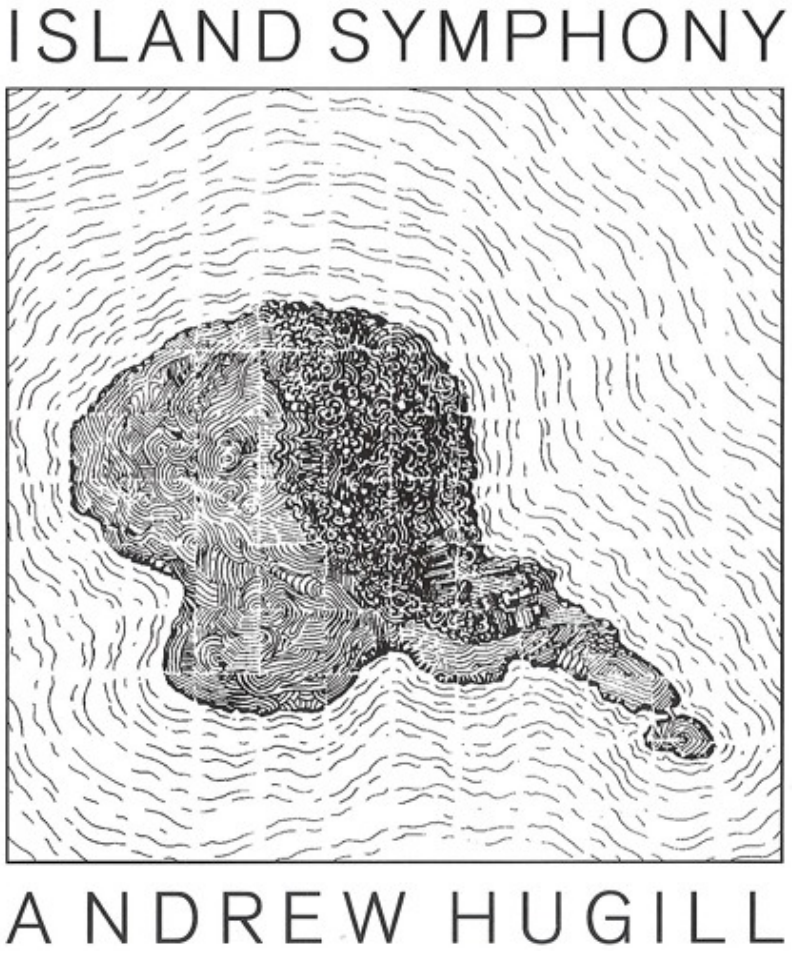




Music Computers

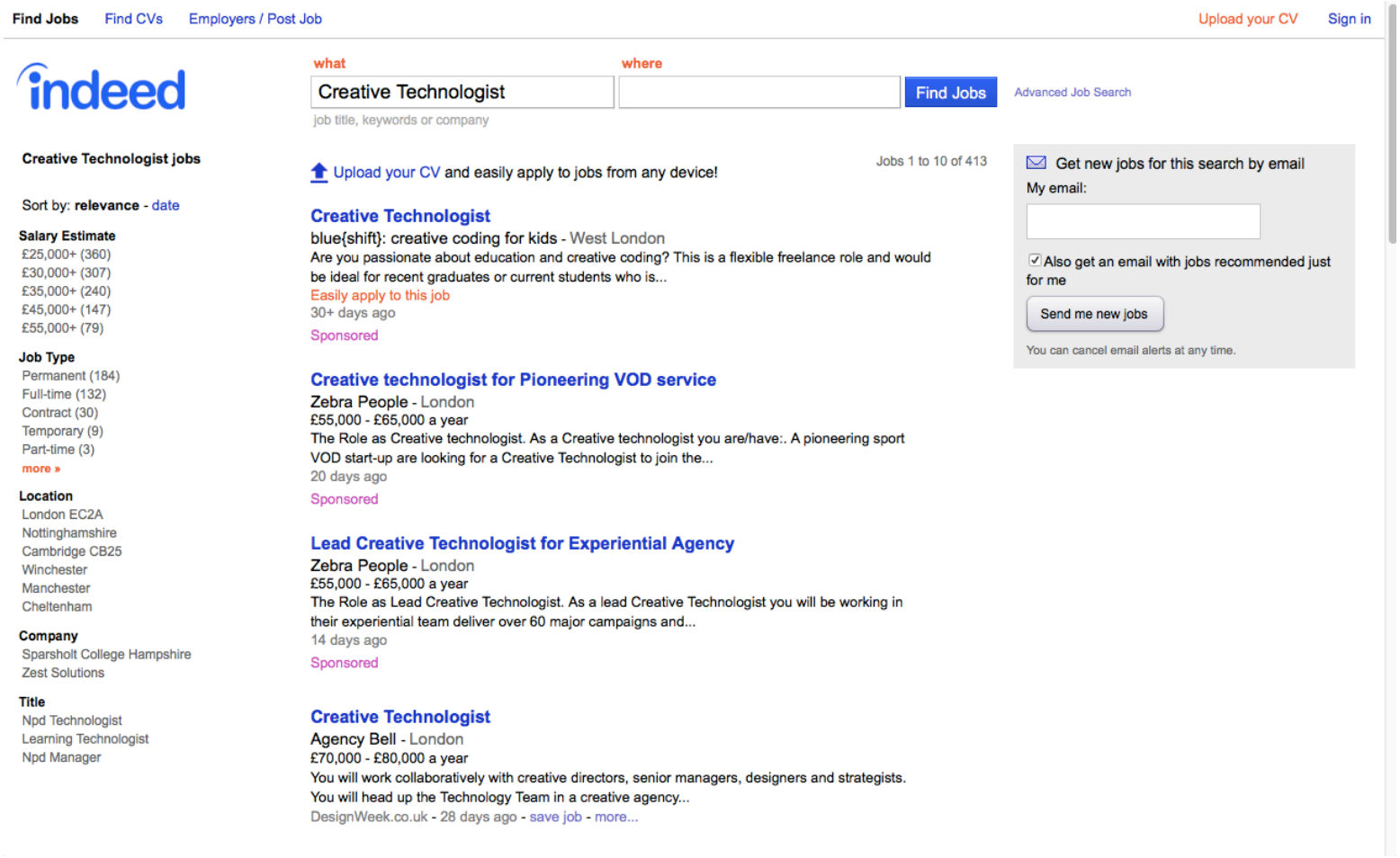


Island Symphony





Emergence


Find Jobs
Find CVs
Employers / Post Job
Upload your CV
Sign in
indeed
what
Creative Technologist
where
Find Jobs
Advanced Job Search
job title, keywords or company
Creative Technologist jobs
Sort by: relevance - date
Salary Estimate
£25,000+ (360)
£30,000+ (307)
£35,000+ (240)
£45,000+ (147)
£55,000+ (79)
Job Type
Permanent (184)
Full-time (132)
Contract (30)
Temporary (9)
Part-time (3)
more »
Location
London EC2A
Nottinghamshire
Cambridge CB25
Winchester
Manchester
Cheltenham
Company
Sparsholt College Hampshire
Zest Solutions
Title
Npd Technologist
Learning Technologist
Npd Manager
Upload your CV and easily apply to jobs from any device!
Jobs 1 to 10 of 413
Creative Technologist
blue{shift}: creative coding for kids - West London
Are you passionate about education and creative coding? This is a flexible freelance role and would be ideal for recent graduates or current students who is...
Easily apply to this job
30+ days ago
Sponsored
Creative technologist for Pioneering VOD service
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The Role as Lead Creative Technologist. As a lead Creative Technologist you will be working in their experiential team deliver over 60 major campaigns and...
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Agency Bell - London
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You will work collaboratively with creative directors, senior managers, designers and strategists. You will head up the Technology Team in a creative agency...
DesignWeek.co.uk - 28 days ago - save job - more...
Get new jobs for this search by email
My email:
Also get an email with jobs recommended just for me
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You can cancel email alerts at any time.

Audio-only Gaming



Simon



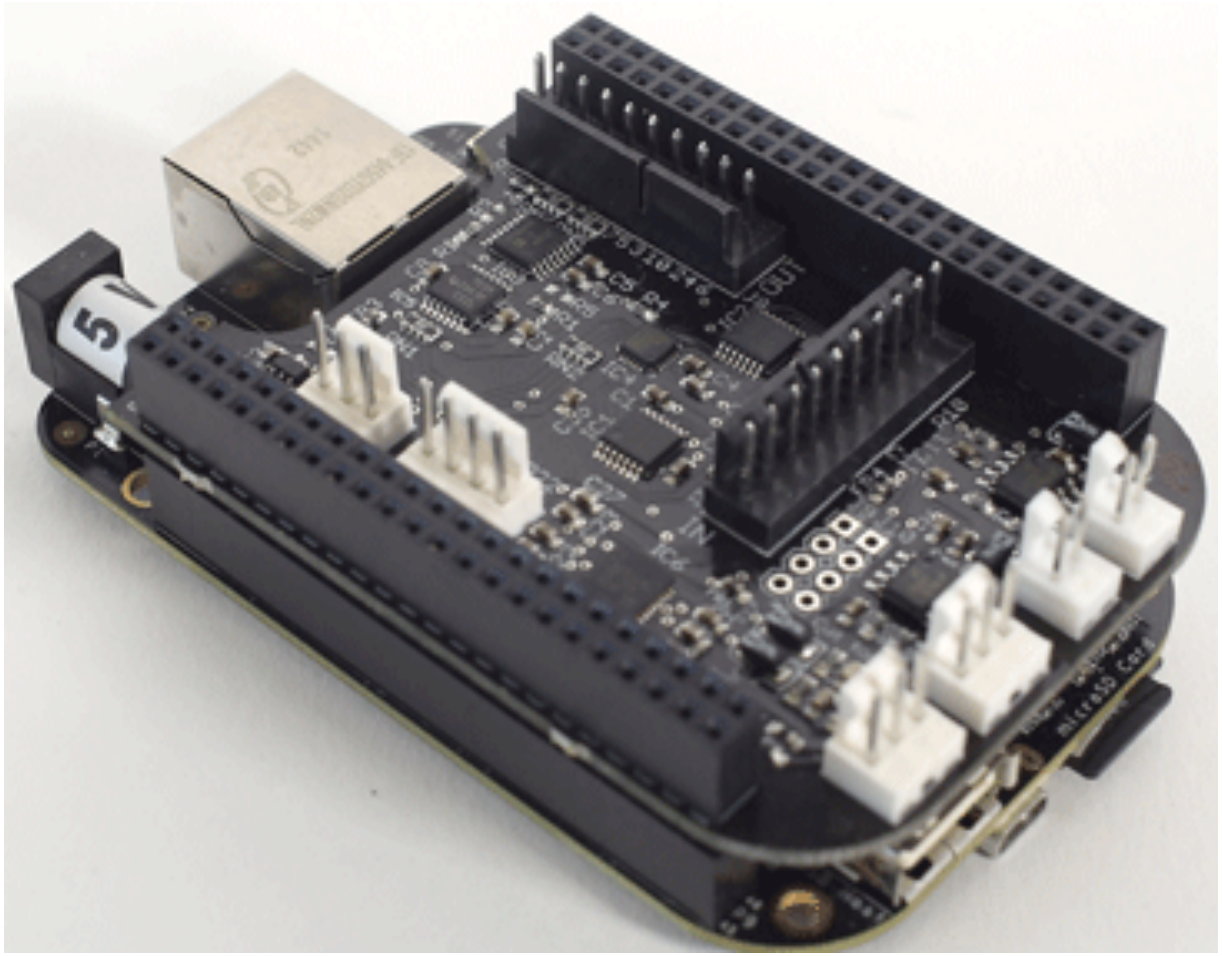
Papa Sangre



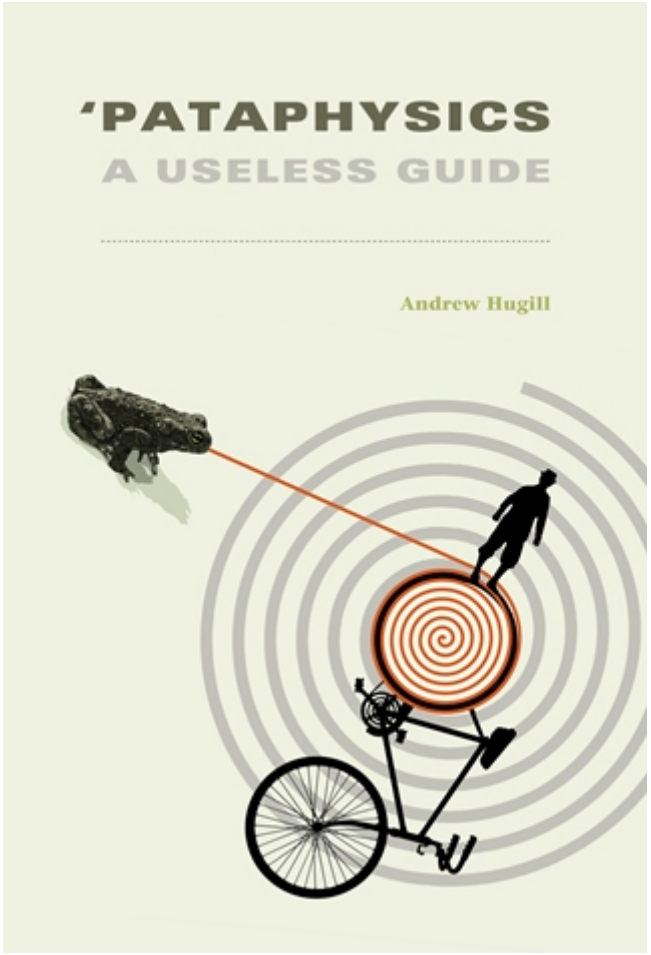
Data Gloves



Soundsweep



’Pataphysics



Alfred Jarry

Alfred Jarry (1873-1907)

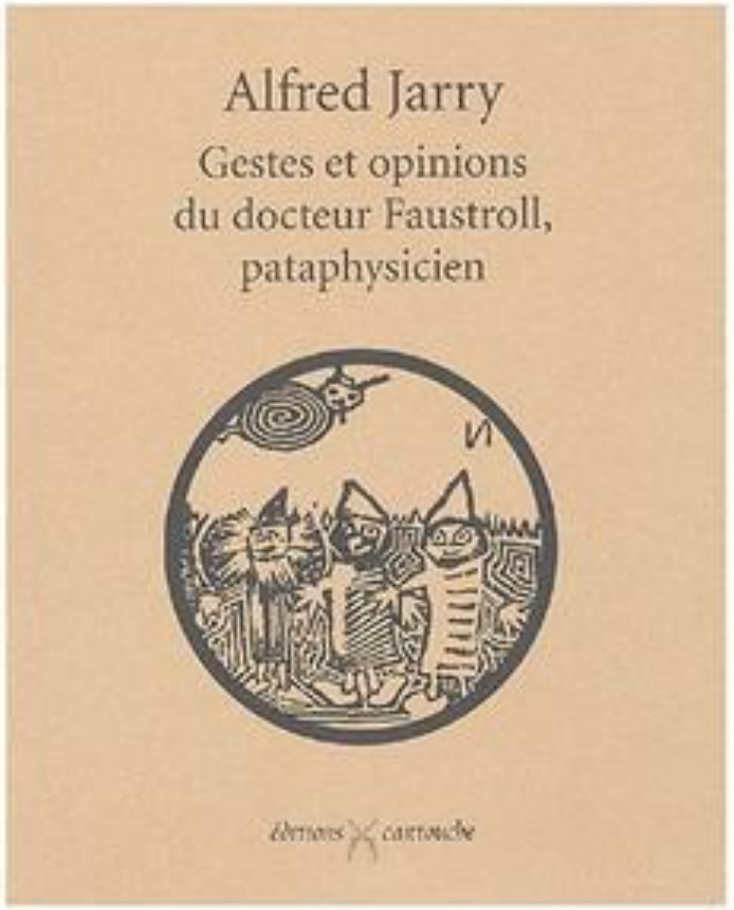


***Ubu Roi* (1896)**



Véritable portrait de Monsieur Ubu.

Doctor Faustroll



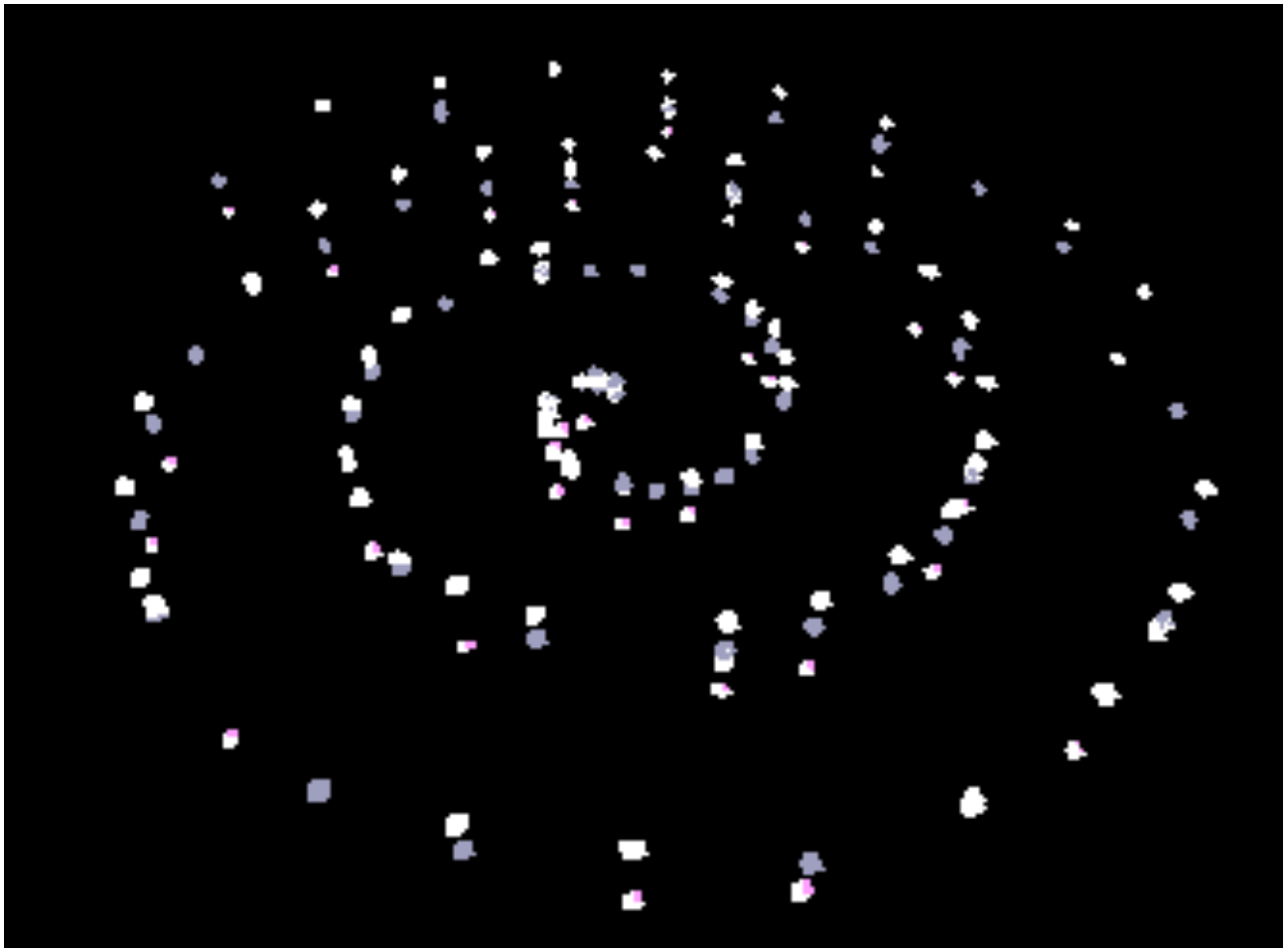
Collège de ’Pataphysique



Declensions of Pataphysics

- Clinamen (from Epicurus)
- Antinomy (contra Kant)
- Syzygy (as in astronomy)
- Anomaly (does not fit)

Patadata



Borges' Chinese Encyclopedia: Definitions of 'animals'

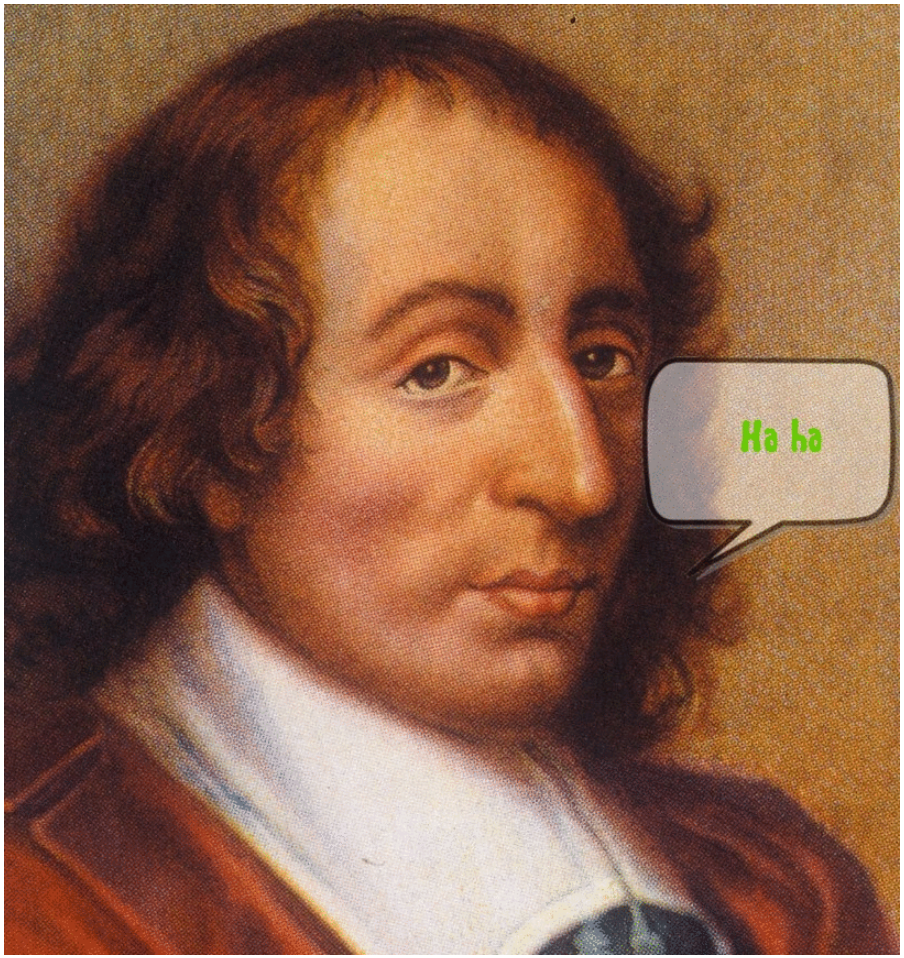
those that belong to the Emperor,
embalmed ones,
those that are trained,
suckling pigs,
mermaids,
fabulous ones,
stray dogs,
those included in the present classification,
those that tremble as if they were mad,
innumerable ones,
those drawn with a very fine camelhair brush,
others,
those that have just broken a flower vase,
those that from a long way off look like flies.

Syzygy Surfer

Borges' definitions of animals annotated:

Class	Relations
Those that belong to the Emperor	culturally specific, royal, possessive
embalmed ones	past, preserved
those that are trained	made uniform, commonalities
suckling pigs	young, edible, noisy
mermaids	seductive, semi-human
fabulous ones	mythical, imaginary
stray dogs	outside known networks, rough and ready
those included in the present classification	organized, self-similar
those that tremble as if they were mad	uncontrolled, incoherent
innumerable ones	general, multiple
those drawn with a very fine camelhair brush	culturally specific, aesthetically distinct
others	non-categorical, unspecifiable
those that have just broken a flower vase	present, errant, mischievous
those that from a long way off look like flies	swarming around a particular topic

PRASCAL



Levels of Abstraction

< Physics > ’+ < Physics > ::= Metaphysics

< Metaphysics > ’+ < Metaphysics > ::= Pataphysics

< Pataphysics > ’– < Metaphysics > ::= Metaphysics

< Metaphysics > ’– < Physics > ::= Physics

< Physics > ’* < Metaphysics > ::= Pataphysics

< Pataphysics > ’/ < Metaphysics > ::= Physics

Frog - Heqet - hoquet

frog '+ frog = heqet

heqet '+ heqet = hoquet

hoquet '– heqet = heqet

heqet '– frog = frog

frog '* heqet = hoquet

hoquet '/ heqet = frog

Uboolean Logic

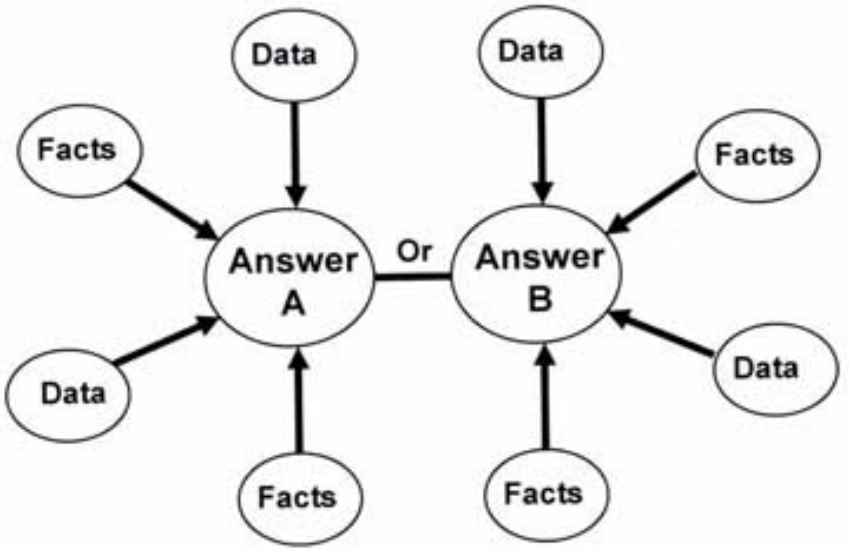
X	*Y*	*Z = X (AND ∧)Y*
F	F	*F*
F	T	*F*
F	FT	*F*
T	F	*F*
T	T	*T*
T	FT	*FT*
FT	F	*F*
FT	T	*FT*
FT	FT	*FT*

Quantum Computing

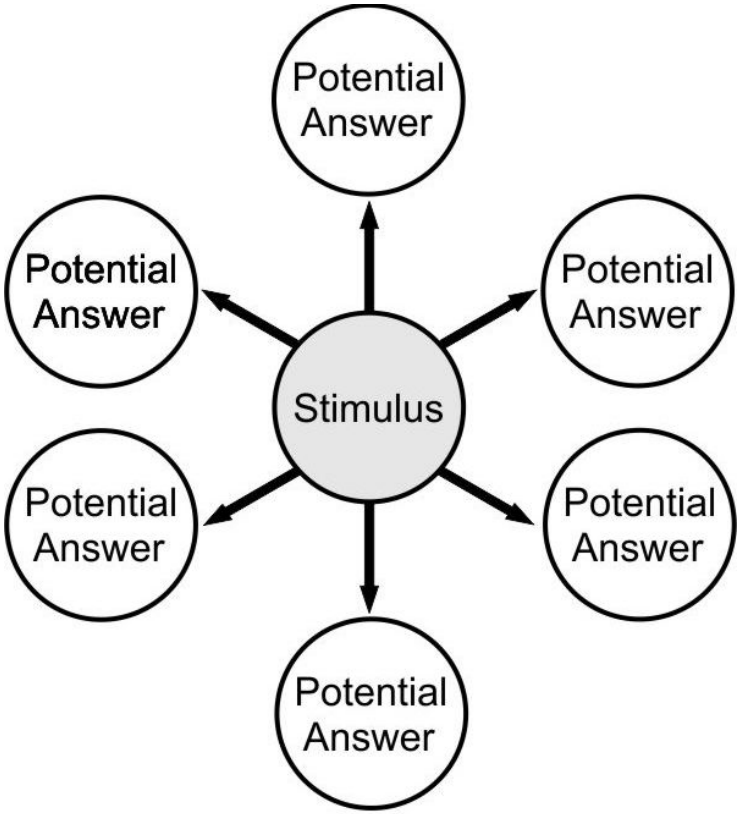


Creativity

Convergent thinking



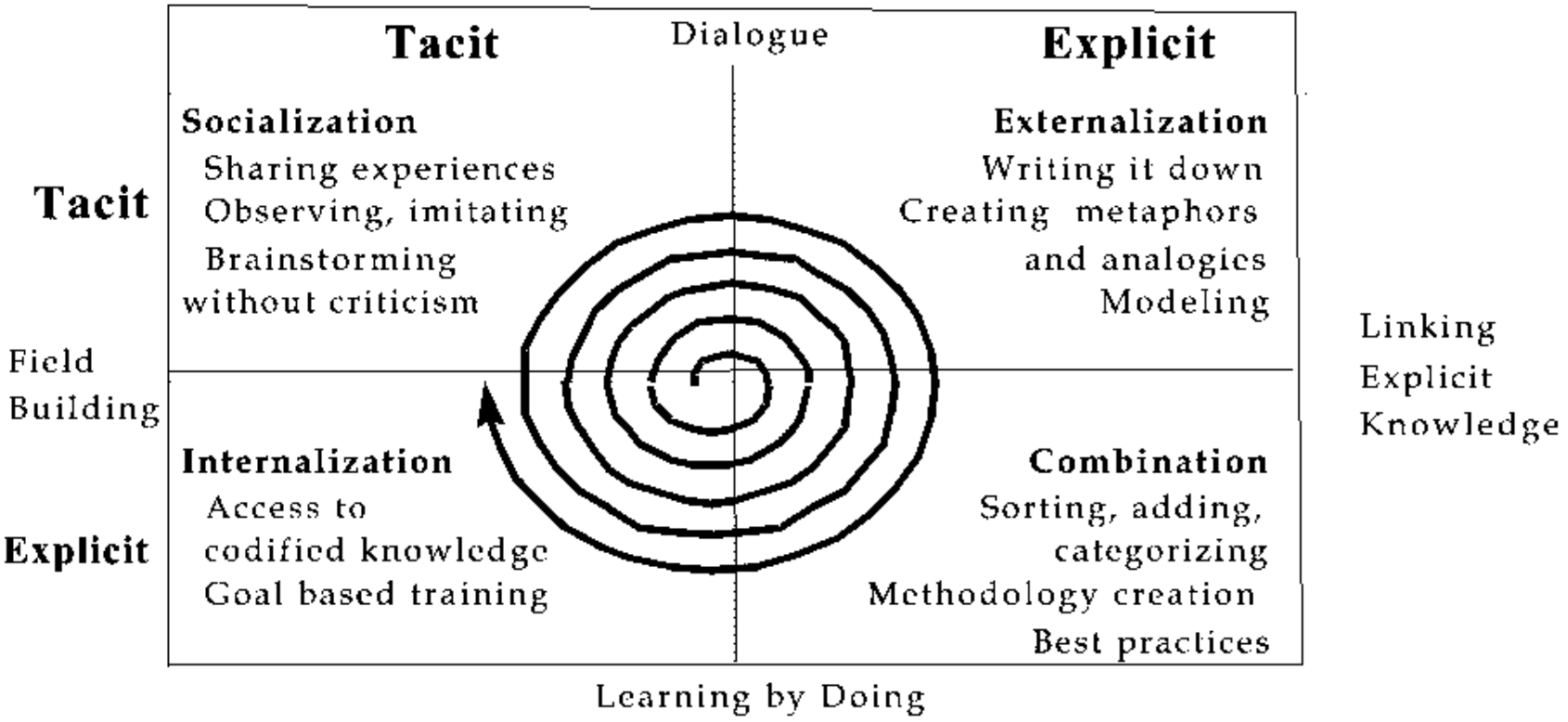
Divergent thinking



Knowledge

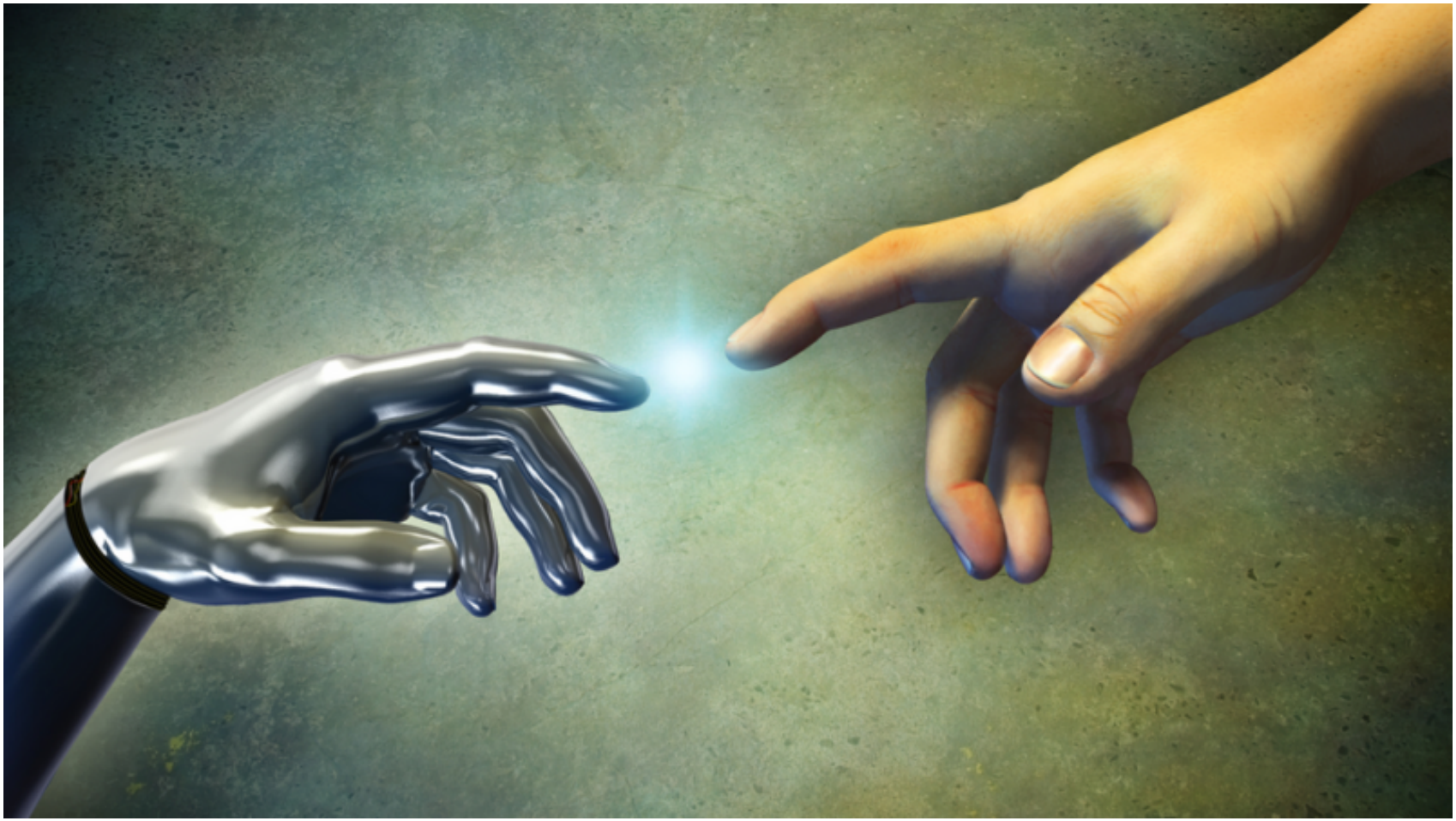


The Tacit Dimension



Nonaka, I. (1991) "The knowledge creating company." *Harvard Business Review,* 69, (Nov-Dec), 96-104

Superintelligence?



Transhumanism

“AI will take off on its own, and re-design itself at an ever-increasing rate. Humans…would be superseded” (Stephen Hawking)



“The body is obsolete” (Stelarc)



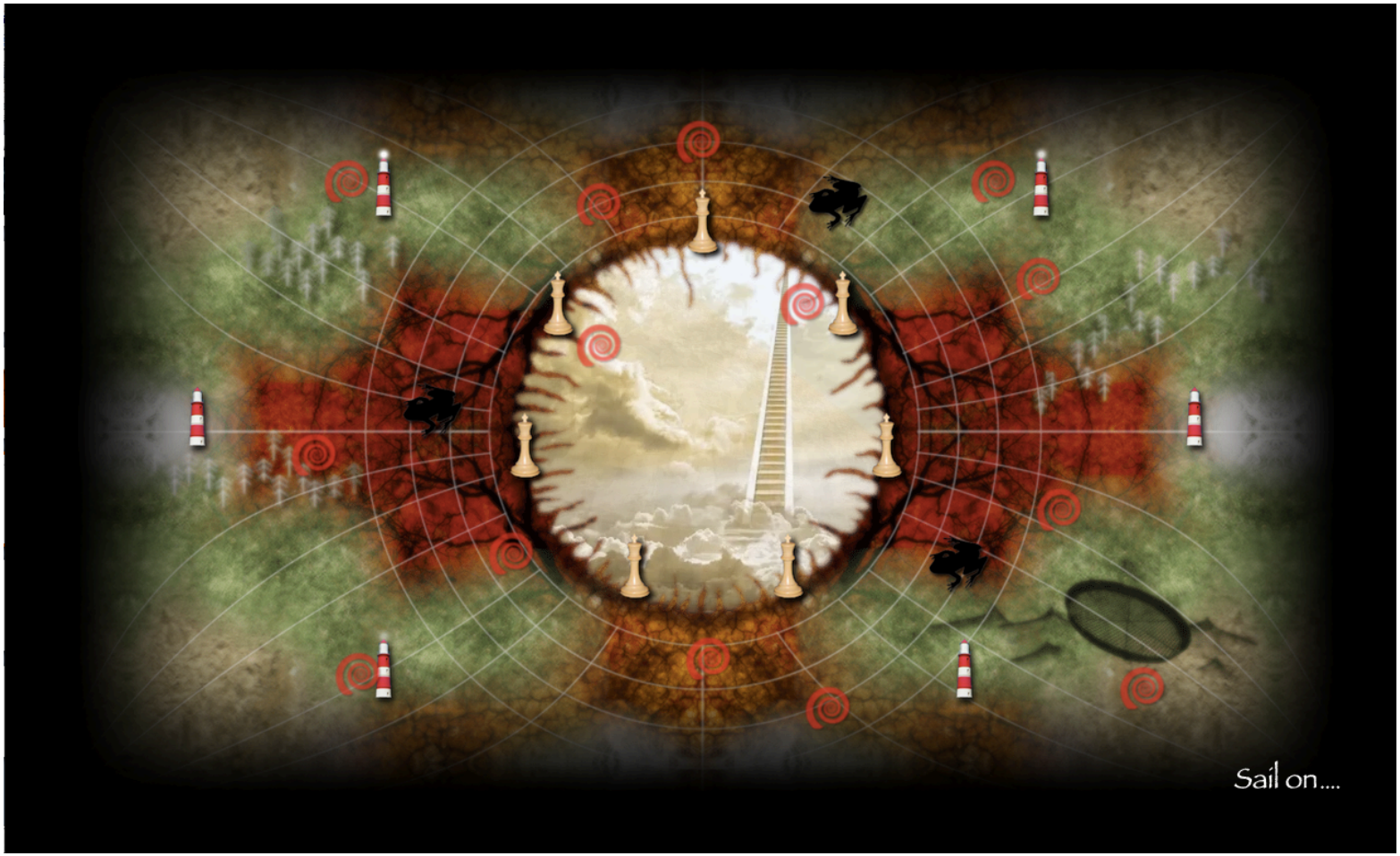
Machine Consciousness



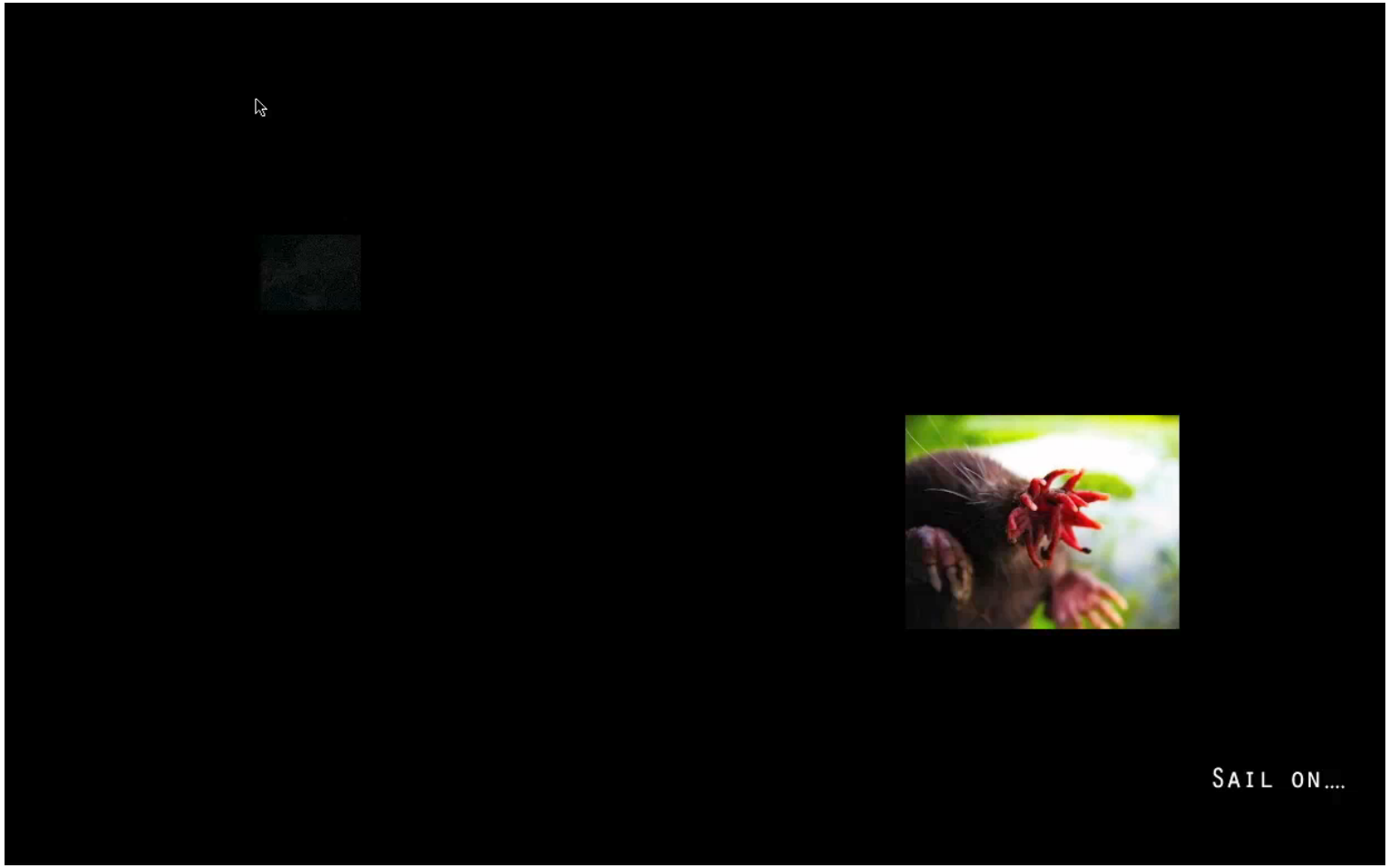
Robert Smithson: *Spiral Jetty* (1970)



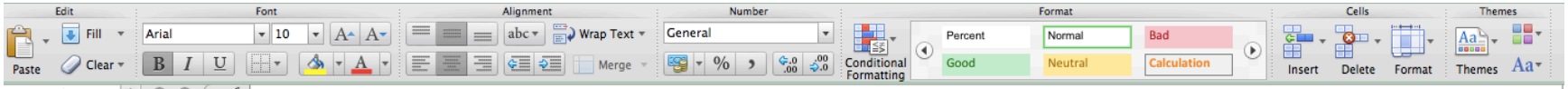
The Imaginary Voyage
www.theimaginaryvoyage.com



Isle of Cack

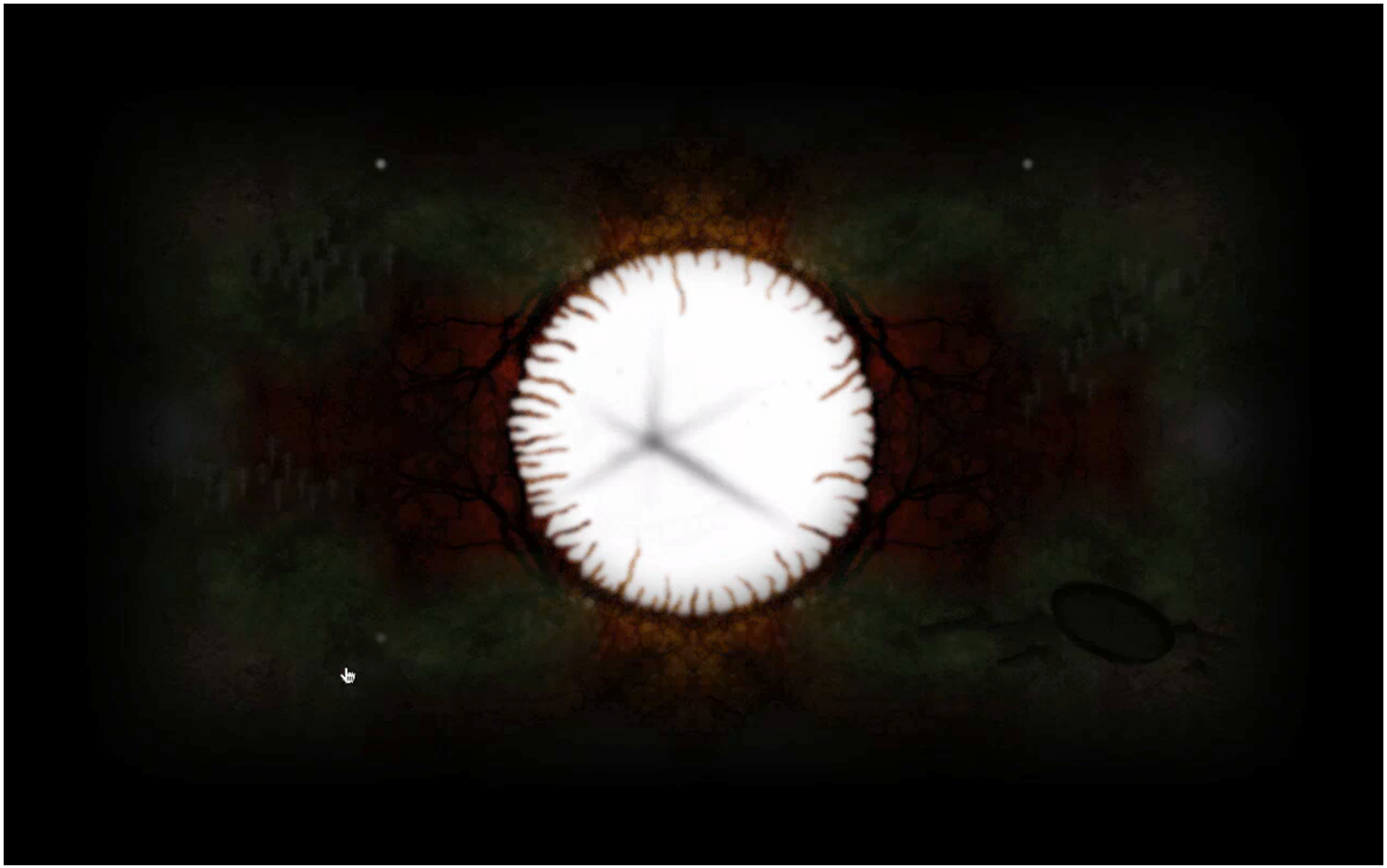


Amorphous Isle – matrix (part)



	A	B	C	D	E	F	G	H	I	J	K
1											
2		Global Transformations	Duration (Time)	Space (Spatialisation)	Atmosphere	Text (Possibly)					
3											
4		**Constraints**	**a**	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**i**
5	Sound										
6	1	Silence	Echoing	Ambient	Digital	Analog	Anticipatory	Post-apocalyptic	Flat	Cavernous	Clocked (ticking)
7	2	Timbre	Clear	Unfocussed	Strident	Rounded	Resonant	Flat	Bright	Dark	Heavy
8	3	Allusion (Music)	Medieval	Baroque	Classical	Romantic	Modern	Imaginary	Non-Western	Popular	Random
9	4	Harmony	Atonal	Jazz	Microtonal						
10	5	Voicing	Monophonic	Homophonic	Polyphonic	Heterophonic	Micropolyphony				
11	6	Spectromorphology	Attack-impulse	closed attack-decay	Open attack-decay	Linear attack-decay	Linear graduated continuant	Swelled graduated continuant	Graduated continant	iteration	grain
12	7	Order	Very Precise/Irrevocable	Detailed	Micro Structural	Macro Structural	Referential	Relaxed	Improvisation	Aleatoric	Generative (computer)
13	8	Feeling	Sweeping/Flowing	Aggressive	Building/Tension	Depressed/Blue	Driving/Upbeat	Ethereal	Inspirational/Heartfelt	Raw/Dirty	Reverent
14	9	Dynamics (loudness)	Very loud	Loud	Alert	Moderate	Quiet	Whisper	"ppppppp" (Ligeti's Études no.9)	Peripheral or unconcious	Structured change (dynamics)
15	10	Pace	Static	Solumn	Fairly Slow	Moderate (Towards walking pace)	Upbeat	Fast	Very fast	Frantic	Structured change (pac
16	11	Instruments	Chordophone	Aerophones	Membranophones	Idiophone	Electrophones	Crystallophones	Hydraulophone	Pyrophone	Lithophone
17	12	Genre	Soundscape (natural)	Soundscape (human)	Glitch	Microsound	Electroacoustic	8-bit (Chiptune)	Musique concrète	Noise	Genetic (Evolutionary mu
18	13										
19	14	Emotion (music)	Sadness	Joy	Anticipation	Rage	Loathing	Grief	Terror	Trust	Combinatory
20											
21	Text										
22	15	Theme	Love	Death	Sex	Life	Freedom	Happiness	Truth	Beauty	'Pataphysics
23	16	Genre	Fable	Fantasy	Folklore	Historical	Mystery	Poetry	Science fiction	Gothic	Romance
24	17	Style	Past	Present	Future	Philosophical	Casual	Anecdotal	Factual	Deconstructed	Florid
25	18	Setting	Town	Country	Travelling	Interior (building)	Room	Interior (mind)	Imaginary	Nowhere	Anywhere
26	19	Form	Free	Constrained	Poetic	Allegory	Didactic	Dramatic	Discursive	Epic	Lyric
27	20	Character (text)	Impassioned	Indifferent	Savage	Whimsical	Rumbustuous	Illusory	Expressive	Impressive	Informative
28	21	Mood	Lyrical	Tender	Aggressive	Anodyne	Authorial	Circumlocutory	Confidential	Sad	Happy
29	22	Mode	Declaiming	Despairing	Delighting	Enlightening	Engaging	Deranging	Disturbing	Amusing	Contradicting
30	23	Subject	Man/Men	Woman/Women	Human(s)	Animal(s)	Machine(s)	Flora	God(s)	Entity	The Author
31	24	Object	Science	Art	Society	Technology	Relationships	People	An individual	Group(s)	Things
32	25	Humour	Serious	Ironic	Quizzical	Satirical	Hilarious	Melancholic	Sanguine	Dispassionate	Comical
33	26	Operation	Transformative	Forward	Continuant	Blast	Backward	Transient	Ambiant	Imperceptible	Cleansing
34	27	Pause	Brief	Moderate	Lengthy	Puzzled	Reflective	Ruminative	Serene	Astonished	Halting
35	28	?									

Amorphous Isle



Land of Lace - text

The king of Lace drew out the light as a ropemaker plaits his retrograde line,
and the threads troubled slightly in the dim light, like cobwebs.
They wove themselves into forests, like the leaves which hoarfrost engraves on windowpanes;
then they fashioned themselves into a Madonna and her Child in the Christmas snow;
and then into jewels, peacocks, and gowns, intermingling like a swimming dance of the Rhine maidens.
The Beaux and the Belles strutted and preened in imitation of fans, until their patient gathering broke up with a cry.
Just as the white junonians, roosting in a park, complaining raucously when the lying intrusion of a lamp apes prematurely the dawn's reflection of their ocelli,
so an artless shape burgeoned in the forest of raked-over pine pitch;
and as Pierrot serenades the confusion of the moon's entwined ball,
the paradox of day burrowing underground arose from Ali Baba screaming in the pitiless oil and the jar's darkness.

Land of Lace



Thank you!

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http://andrewhugill.com